

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 7:24 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 747 Const Calendar Day: 320 Date: 20-Apr-2013 Saturday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather**

Temperature	7 AM	12 PM	4 PM
Precipitation			Condition clear

Working Day ☒ If no, explain:**Diary:**

Dispute

General Comments

MISCELLANEOUS BOLTS FOR VARIOUS PORTIONS OF THE BRIDGE:
HIGH STRENGTH FASTENER ASSEMBLY PRE-INSTALLATION TESTING:

At Pier 7 Warehouse, test rotational capacity, minimum tension verification, and inspection torque for for high strength bolt assemblies from 1400 to 1700 for 3 hours. CT witness by Bob Brignano, ABF Engineer is Chris Bausone. The equipment is the Bolt Testing Conex ABF ID 002079 and the Skidmore Model HT 4000 ABF ID 000612. Testing is for 6 rocap lots 7/8" diameter and 1 rocap lot 1" diameter. These assemblies have no currently assigned or designated locations and were purchased by ABF as a contingency measure for unknown future needs. See the attached Bolt Test Form for details of the testing.

For the one lot of 1" diameter assemblies, the first bolt tested does not meet the minimum tension requirement at the specified turn of the nut amount. The rocap testing passed on this bolt. For 1" diameter assemblies, ABF does not have specifically machined test plates for the Skidmore and uses the M24 plates. The bolt head for the 1" bolt is a tight fit in the bushing and the bolt shank is a tight fit in the holes. It was determined that the failure was due to the assembly not being quite tight prior to the beginning of the test. Specifically, the bolt head was not fully seated in the test plate bushing (1" diameter bolt in M24 test plates) and the gap closed at some point after the minimum snug tight tension was achieved. This resulted in lower later tension values as the tension was lost during seating of the bolt head. For all subsequent tests, proper seating of the bolt in the test plate assembly was verified. Instead of testing the normal 5 assemblies, 10 assemblies were tested. The 9 tests with properly compressed elements are consistent, and the first test without properly compressed elements is the outlier. We determined that this rocap lot is acceptable and passed the pre-installation testing.

ASTM A354 GRADE BD MATERIAL - IN FIELD TO LOCATE SPARE MATERIAL:

All ABF orders from Dyson have included spare material in case of field problems. After the spare material is no longer needed, some of it is still available somewhere on site and some of it has disappeared over time.

See 4/12/2013 for details of previous items located in the Pier 7 yard. Today, I found the extra 3" diameter bolt for the tower boom. There are 4 bolts installed in the field, with 2 tightened and 2 on standby untensioned in the current boom configuration. There was a 5th bolt ordered as a spare, and I found it in the warehouse today.



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Job Name: 04-0120F4

Inspector Name Brignano, Bob

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Saturday

INSPECTOR OT REMARK:

Field and Office 4 hours: Rocap testing in the field from 1400 to 1700. Then work in the office processing data for the A325 rocap lots.